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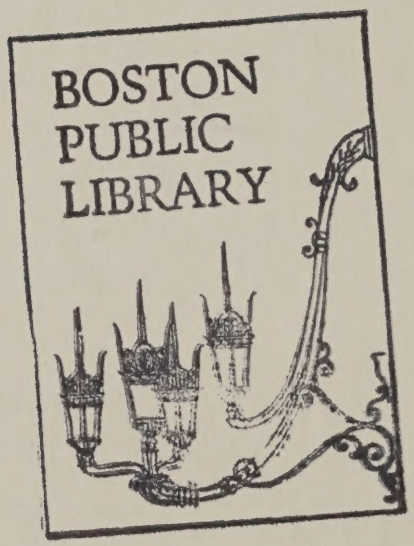
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EVALUATION OF PROPOSED NEW ARENA AND CONVENTION/EXHIBITION FACILITIES

Prepared for

Mayor's Task Force Committee
and
Boston Redevelopment Authority

By

Economics
Research
Associates

November 1977

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November 23, 1977

Mr. Mortimer B. Zuckerman, Chairman
Mayor's Task Force Committee
c/o Boston Urban Associates
133 Federal Street
Boston, Massachusetts 02110

Dear Mr. Zuckerman:

Enclosed is the memorandum report which describes our evaluation of the development concept and financial operating characteristics of the proposed arena and convention-exhibition hall for the City of Boston. This report contains sufficient statistical documentation to support our major conclusions regarding the projected financial performance of these new public assembly facilities.

Estimated revenues and expenses in a stabilized operating year with aggressive private management are as follows:

Revenues	(000)	
Building Rentals	$ 2,903	
Concessions	963	
Sky Box Rentals	400	
Advertising	400	
Other Revenue	194	
Total Revenues		$ 4,860
Expenses		
Labor	$ 950	
Utilities	350	
Direct Operating Expenses	150	
General and Administrative	200	
Insurance	150	
Other	150	
Total Expenses		$ 1,950
Net Revenues Available For Debt Service		$ 2,910

The methodology and assumptions employed in this study, more fully described in the enclosed report, involved an in depth review of the operations of comparable facilities in Philadelphia, New Orleans, Long Island, Atlanta, Houston, Indianapolis and Washington, D.C.

If there is any further information you require please contact me directly. We appreciate the opportunity to be involved in this most interesting and challenging project.

Very truly yours,

David C. Petersen
Manager, Southeast Region

prc
A Planning Research Company

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Section I

INTRODUCTION

Economics Research Associates was retained in October 1977 to test the financial feasibility of a development and operating concept for a new arena and convention-exhibition facility to better serve the needs of the City of Boston. This introductory section will describe the background of this assignment, the methodology employed and outline of the report.

BACKGROUND

In September of 1977, the Mayor of Boston appointed a three-member committee, chaired by Mortimer B. Zuckerman, to develop an operating and financing plan to support the development of a new sports arena and convention-exhibition facility. The work of the Mayor's Task Force Committee has included review of prior research and feasibility studies regarding the development of comparable facilities in Boston, evaluation of alternative sites and their respective development costs, analysis of the financing and operation of comparable facilities in other cities and discussions with individuals in the Boston area who own, operate or promote pro sports teams, concessions, entertainment events, etc. Extensive negotiations were carried on between the Mayor's Task Force Committee and the Boston Bruins, the Boston Celtics and the concessionaires.

The operating and financing plan developed by the Mayor's Task Force Committee includes the following principal elements and working assumptions:

- Development of an arena with 18,000 permanent and 2,000 temporary seats,
- Possible development of a 225,000 square foot convention/exhibit building,
- The Boston Garden would not operate in competition with the proposed development,

- All home games of the Bruins, Celtics and Lobsters exhibition, regular season and playoffs would be played at the proposed arena for the rental rates shown in this report,
- Bruins, Celtics and Lobsters will pay event costs for insurance, set up, teardown, cleaning and event-related personnel and services,
- The proposed arena will be operated by a private organization under terms of a management agreement which serves the interests of the City, building management, pro teams and concessionaire,
- Concessions franchise at the arena will be granted for rates as shown in this report,
- Long term financing will be provided from the sale of tax exempt bonds,
- The arena would make a payment to the City, annually, in lieu of property taxes on the arena.

Based upon the above listed terms and conditions, the Mayor's Task Force Committee, through the Boston Redevelopment Authority, retained Economics Research Associates to evaluate the financial operations of the proposed development and the operating concept.

METHODOLOGY

During the course of this assignment, personal interviews were conducted with individuals representing the Boston Gardens Corporation, Sportsystems, Boston Bruins, the Boston Lobsters tennis team, Mayor's Task

Force Committee, John B. Hynes Veterans Auditorium, Greater Boston Convention and Tourist Bureau and others. Prior feasibility studies, reports and correspondence relevant to this analysis were also evaluated. The reasonableness of the estimates and projections contained herein was tested in terms of the operating characteristics of similar facilities with the Boston area as well as arena and exhibition facilities in other major cities.

This report was prepared by David C. Petersen.

OUTLINE OF REPORT

The projected arena financial operations are described in Section II. Estimated market demand and financial operations of the proposed exhibition/convention center facilities and site location considerations are described in Section III.

Section II

PROJECTED ARENA FINANCIAL OPERATIONS

The financial operations at the proposed arena are estimated in this section. Estimates are based upon aggressive and experienced management operating the new facility under a management contract which provides compensation incentives for the private management firm to maximize attendance, events and income. It is also assumed that the Mayor's Task Force will become a permanent organization responsible for negotiating and monitoring all operations at the arena as an Agent for the City. Projections of events, attendance, expenses and other revenue and expense items are based upon the assumptions set forth in the Introduction to this report, current operations of comparable facilities in the Boston metro area, local telecasting of events only when a sell-out occurs and operations of comparable facilities in other major cities.

OPERATING REVENUES

Building rental and concessions revenue typically account for 90 percent or more of total income derived from the operation of a public assembly facility (arena, exhibit hall, stadium, auditorium, etc.). Other revenues include parking, catering, advertising, sky box suite rentals and miscellaneous income. Money paid by tenants of the building to reimburse management for event related costs (ushers, ticket takers, box office services, event security, event set up, event cleaning, insurance, event utility uses, etc.), is put into a separate revolving account for each event and is not shown on the financial operating statements as income or expense.

Building Rentals

A pro-sports team or a promoter for an event will enter into an agreement (rental contract) for the use of the building for a single performance or series of dates. Typically the contract will provide rental payment in the form of a minimum rental fee against a percentage of gross ticket sales (whichever is greater), plus reimbursement for all event related expenses. Occassionally, for very special one-of-a-kind events, (such as "super star" or World Championship Boxing Match) a "flat rate" may be negotiated which includes rental and reimbursable expenses. Table 1 shows comparative operating characteristics of sports arenas in seven major cities including Boston. Because this table shows many different types of operating characteristics it will be referred to throughout this report.

Arena charges shown on this table reveal minimum rental, percentage of gross ticket sales, ticket taxes, "average" reimbursable charges for a sellout rock concert and "flat fee", if available.

Boston Garden's total paid attendance, number of events, average ticket price and gross receipts for the past four years are shown in Table 2, by type of event.

It is proposed that the new arena will become the permanent home for all events now being held at the Boston Garden and the Garden will not be utilized in competition with the new facility. Furthermore, the new facility will also be utilized by the Boston Lobsters World Team Tennis club for the play of all their regularly scheduled and playoff home games.

Table 3 shows the projected number of events, attendance, ticket sales, rental and concessions income projected for the new facility. The total number of events per year are projected under optimum or maximum operating schedules.

Table 1

COMPARATIVE FACILITY DATA

	Nassau Coliseum (Long Island, N.Y.)	Pittsburg Civic Arena (Pittsburgh, Pa.)	OMNI Arena (Atlanta, Ga.)	Market Square Arena (Indianapolis, Ind.)	The Summit Arena (Houston, Tex.)	The Spectrum Arena (Philadelphia, Pa.)	Boston Gardens Arena (Boston, Mass.)
Population - (Metropolitan Area)	2.7 mil.	2.3 mil.	1.8 mil.	1.2 mil.	2.4 mil.	4.6 mil.	3.9 mil.
Operation	Public	Public	Private	Private	Private	Private	Private
Total Seating (Portable Seats)	17,000 (5,000)	15,000 (2,000)	17,300 (2,000)	18,700 (2,450)	17,000 (1,500)	20,150 (4,150)	15,509 (2,752)
Exhibit Area (Events)	60,000 sf (68)	60,000 sf (51)	-	-	-	-	-
Pro Basketball/Pro Hockey	NBA/NHL	-A- /NHL	NBA/NHL	NBA/WHA	NBA/WHA	NBA/NHL	NBA/NHL
Full-Time Employees:	110	44	25	32	30	71	12
Exec./Admin./Acctg.*	29	9	7	7	n.a.	30	20
Box Office	11	5	6	1	5	9	2
Operations/Trades/Custodial	70	30	12	22	n.a.	32	10
Labor Cost as a % of Total Exp.	67%	52%	15%	41%	n.a.	29%	14% ***
Operating Surplus 1976	Breakeven	Breakeven	$1,550,000	$800,000	n.a.	n.a.	$460,000 ***
Total Revenue-1976	1.2 mil.	$1.5 mil.	$2.10 mil.	$2.5 mil.	n.a.	n.a.	$2.1 mil. ***
Arena Events-1976 (Concerts)	233 (29)	237 (37)	194 (32)	180 (22)	200 (39)	253 (57)	209 (17)
Arena Charges:							
Rental (Adm. Tax)	$8,500 vs. 17 1/2% (0)	$2,000 vs. 12 1/2% (10%)	$6,000 vs. 17 1/2% (4%)	$5,000 vs. 15% (15%)	$1,500 vs. 15% (0)	$8,500 vs. 20% (5%)	(No Min.) vs. 19-1/2% (0)
Reimbursables (Average)							
(Sellout Rock Concert)	$16,000	$10,000	$9,000	$8,500	n.a	$15,000	$28,000
Flat	$35,000	none	$33,000	$15,000	n.a.	$45,000	none
Exhibit Hall:							
Rental/ sf **	4¢ vs. 17 1/2%	3¢	3¢	2¢ vs. 12%	2¢	n.a.	2¢-3¢
Utility Cost - 1976	631,000	$266,000	$200,000	$260,000	n.a.	$295,000	$103,000
Concessions:							
Estimated Capital Cost	$1.9 mil.	$.4 mil.	2.0 mil	$.6 mil.	n.a.	$.7 mil.	n.a.
Operated by Concessionaire	Stevens	A.R.A.	Hdqr.	A.R.A.	Stevens	A.R.A.	Sportsystems
Ave. Building Net %	33%	40%	46%	38%	n.a.	34%	40%
Parking:							
Number of Spaces	6,000	1,100	6,200	1,450	6,000	8,000	2,000
Parking Charge	$1.00	$1.25	$1.50-$2.00	$1.50	35¢	$1.50	$3.00

* Includes Advertising and P.R.

** For exhibit space in building or in other building if none in complex.

*** Adjusted to exclude non-Arena income, expenses and depreciation.

Source: Economics Research Associates

Table 2

NEW BOSTON GARDEN CORPORATION
STATEMENT OF PAID ATTENDANCE AND RECEIPTS
(Four Years Ending 6/30/77)

Attractions	June 30, 1977 Number of Events	Paid Attendance	Average Attendance Per Event	Average Ticket Price	Gross Receipts	June 30, 1976 Number of Events	Paid Attendance	Average Attendance Per Event	Average Ticket Price	Gross Receipts	June 30, 1975 Number of Events	Paid Attendance	Average Attendance Per Event	Average Ticket Price	Gross Receipts	June 30, 1974 Number of Events	Paid Attendance	Average Attendance Per Event	Average Ticket Price	Gross Receipts
Bruins	40	461,049	11,510	$ 8.84	$ 4,075,888	40	579,801	14,500	$ 6.96	$ 4,037,050	40	561,240	14,031	$ 7.08	$ 3,974,133	39	568,800	14,584	$ 5.85	$ 3,329,006
Celtics	35	405,915	10,600	5.75	2,332,677	36	431,904	12,053	5.17	2,230,893	34	402,281	11,832	4.78	1,921,428	32	109,027	9,657	4.50	1,189,176
Ice Follies	24	212,247	8,850	5.41	1,148,962	24	203,255	8,470	5.38	1,092,917	24	209,996	8,750	5.09	1,067,880	23	207,782	9,034	4.67	974,036
Ice Capades	19	154,010	8,100	5.48	844,783	17	102,116	6,006	4.79	488,725	18	107,234	6,000	4.52	484,816	18	110,501	6,140	4.57	505,550
Circus	25	190,325	7,613	5.61	1,067,400	7	42,582	6,083	4.32	184,020	27	182,329	6,753	4.82	878,043	25	186,965	7,479	4.47	836,081
Rock Concerts	17	221,285	13,018	7.79	1,724,054	19	208,669	12,562	7.22	1,724,193	30	414,643	13,821	7.58	3,135,685	16	222,528	14,220	6.05	1,377,523
Wrestling	8	51,974	6,500	6.23	219,330	10	28,518	7,852	4.17	127,242	11	112,096	10,190	4.15	465,411	13	124,113	9,547	3.11	400,804
College and School Sports	17	110,957	7,703	3.21	421,005	15	99,140	6,610	2.78	275,657	15	89,579	5,972	2.92	261,468	20	128,054	6,403	2.29	357,001
All Other	10	13,079	1,308	7.14	242,778	9	53,705	5,970	5.06	371,727	11	60,994	5,545	7.01	427,851	18	73,255	4,070	4.84	354,147
Sub Total	195	1,860,841			$12,077,204	177	1,831,690			$10,832,432	210	2,140,392			$14,596,937	204	1,936,027			$ 9,544,023
Play Off Games (not included above)																				
Bruins 1/	(10)	101,611	10,161	10.80	1,098,681	(9)	90,501	10,945	12.00	1,182,066	(5)	56,714	11,342	7.80	441,794	(12)	158,789	13,232	6.90	1,090,815
Celtics	(4)	55,052	13,763	7.90	434,511	(9)	121,965	13,551	7.60	927,144	(6)	85,877	14,312	7.80	599,110	(9)	126,855	14,095	6.50	827,896

1/ Includes exhibition games

Source: Economics Research Associates

Table 3

BOSTON ARENA PROJECTED OPERATING SCHEDULE
(1977 Dollars)

Type of Event	Number Of Performances	Total Paid Attendance (000)	Attendance Per Event (000)	Total Ticket Sales (000)	Average Ticket Cost	Earned Rental (000)	(%)	Total Concession Sales (000)	Concession Sales Per Capita
Basketball: Celtics	41	533,000	13,000	$ 3,331,250	$ 6.25	$ 433,062	13	$ 639,600	$ 1.20
Celtics Play-Offs	5	75,000	15,000	637,500	8.50	121,125	19	82,500	1.10
Hockey: Bruins	41	594,500	14,500	5,053,250	8.50	656,922	13	832,300	1.40
Bruins Play-Offs	3	45,000	15,000	427,500	9.50	81,225	19	58,500	1.30
Tennis: Lobsters	24	108,000	4,500	648,000	6.00	84,240	13	54,000	.50
Concerts: Rock	25	375,000	15,000	3,187,500	8.50	637,500	20	168,750	.45
Concerts: Other	10	100,000	10,000	750,000	7.50	150,000	20	45,000	.45
Circus: Ringling	25	200,000	8,000	1,200,000	6.00	120,000	10	140,000	.70
Ice Shows: Capades & Follies	43	365,500	8,500	2,010,250	5.50	402,050	20	310,675	.85
Boxing and Wrestling	16	96,000	6,000	480,000	5.00	72,000	15	124,800	1.30
Family Shows	10	50,000	5,000	275,000	5.50	55,000	20	37,500	.75
High School, College and Other	20	150,000	7,500	600,000	4.00	90,000	15	75,000	.50
Total	263	2,692,000		$18,600,250		$2,903,121		$2,568,625	

Source: Economics Research Associates

Boston Gardens had approximately 223 performances in 1974 and 1975. With the addition of the Lobsters (24 home games) and one more event per month they could have achieved in excess of 260 performances. The projected earned rental and gross concession sales for an average year are projected at $2.90 million and $2.57 million respectively.

Concessions

Food and beverage purchases per capita shown in Table 3 are based upon current levels at Boston Garden and comparable facilities in other major cities. Per capita concession sales are reduced when alcoholic beverages are not sold for certain age-level audiences, when food service is limited or when intermissions are not provided of sufficient duration. Based upon the 37½ percent of gross concession sales paid to the building for the food and beverage franchise, concession revenues would yield $963,000.

Sky Box Rentals

Boston Garden currently rents 16 sky boxes, each with maximum seating for 12 persons. It is proposed that the new arena will provide and rent 35 to 45 boxes at a rate comparable to those existing at the Garden - approximately $10,000 per box not including tickets.

Advertising

Many opportunities exist for the sale of institutional and display advertising in a new arena. These opportunities range from the sale of the name of the arena (for example Ralston-Purina's Checkerdome" Arena in St. Louis, Missouri) to display advertising on the scoreboards, ice-resurfacing machine, message boards and diaramas within the public concourses of the

building and outdoor panels. Privately operated Capital Center Arena in the Washington, D.C. area and the Spectrum Arena in Philadelphia reportedly receive $500,000 per year from advertising. It has been estimated that the new facility will derive $400,000 per year, net of expenses and commissions, from this source. This projected net revenue assumes arena management will be able to successfully develop product promotions and advertising packages in conjunction with the concessionaire and through program advertising and internal-building display advertising. This type of "point of sale" advertising and promotion can provide many opportunities necessary to support this projected income.

Parking

The availability of public transportation and local usage patterns will affect the number of automobile parking requirements for a new facility. Furthermore, the availability of nearby parking facilities will determine usage of a parking structure built to serve the new arena. On-site parking requirements are also influenced by type of event (family show versus rock concert), by day of week and time of performance (e.g. circus matinee on Saturday). Consequently, persons in attendance per parking space required will typically vary from 2.0 to 3.7.

Parking rates from the City owned facilities behind Boston Gardens are $3.00 per event. If the same rates were applied to parking facilities utilized for the new arena, parking revenues generated by the new arena could yield:

2.7	million total attendance 260 events (rounded)
3.5	persons per car
771,400	parking requirements annually
$ 3	rate per event
$ 2.3	million parking revenues annually

Other Revenues

Income derived from sources other than those listed above include royalties and franchise fees from radio and television broadcast rights (cable television, sell out and non-home games), income from investment of operating and debt service reserves, catering for special events and clubs, pro team office and locker room rentals, and other miscellaneous income. Typically these "other" revenues yield 3 to 5 percent of total revenue and are estimated to be 4 percent in the new arena.

Other income potentials, not projected here, include (1) operation of remote ticketing outlets/facilities which would serve the arena and other entertainment/sports buildings, (2) private athletic club which would provide a luncheon club, handball-racket ball type facilities, sauna, etc., and, (3) in-house advertising/group sales agency.

Total Revenues

Estimated revenues described in this section (not including parking) are summarized as follows:

	(000)
Building Rentals	$ 2,903
Concessions	963
Sky Box Rentals	400
Advertising	400
Other Revenue	194
	$ 4,860

OPERATING EXPENSES

As shown earlier on Table 1, labor costs (salaries, wages and benefits) account for an average of 45 percent of total expenses. Labor, insurance and utilities taken together typically account for 70 to 75 percent of all expenses. Other operating expense items include general and administrative expenses (office, travel, telephone, postage, etc.), direct operating expenses (supplies, repairs, maintenance of equipment and building, etc.) and other minor classifications.

Labor

The major operating problem of an arena results from the widely varying labor requirements resulting from the seasonality of events and the changeover (tear-down and set-up) costs for an event. As shown on Table 4, event activity in the summer months is substantially less than in other months of the year.

The requirements to changeover from a basketball seating configuration and floor set-up to hockey or vise versa are roughly 90-100 manhours during a 4 to 5 hour period with 15 to 20 people working. Cleanup after an event will typically require 250-300 manhours or about 30 to 35 people during an 8-hour shift for a cost of $1,000, including supplies and material.

It is not uncommon during January and February to have basketball on Friday night, hockey on Saturday night, basketball the following Sunday afternoon and hockey Sunday night requiring 3 changeovers and 3 cleanups in two days. In contrast, during June there may be a week to ten days without a single event. Consequently, the need arises for minimizing the number of permanent year-'round employees, making maximum usage of part-time temporary labor and charging the event for the costs of changeover, cleaning and all other event related costs.

Table 4

BOSTON ARENA
PROJECTED SEASONALITY OF EVENTS

Month	Basketball (Celtics)	Hockey (Bruins)	Tennis (Lobsters)	Concerts	Circus Ringling	Ice Shows Capades & Follies	Boxing & Wrestling	Family Shows	High School College & Other	Total Performance
January	11	7	–	3	–	11	1	–	4	37
February	5	3	–	3	–	24	1	–	4	40
March	8	7	–	4	–	–	2	–	12	33
April	6 (3)*	8 (3)*	–	3	–	–	2	–	–	19
May	2 (2)*	–	7	3	–	–	1	–	–	13
June	–	–	3	1	–	–	1	1	–	6
July	–	–	6	4	–	–	1	–	–	11
August	–	–	8 (3)*	4	–	–	1	–	–	13
September	–	–	–	2	–	–	1	3	–	6
October	–	3	–	3	25	–	1	–	–	32
November	9	9	–	2	–	–	2	3	–	25
December	5	7	–	3	–	8	2	3	–	28
Totals	46 (5)*	44 (3)*	24 (3)*	35	25	43	16	10	20	263

* Number in ( ) denotes playoff games included in totals

A table of organization is shown in Table 5 as an example of the permanent full-time "overhead" employment which might be required in a new arena. Additional personnel required for an event would be retained on a part-time basis and their costs would be paid by the tenant for the event in addition to all other rentals and charges.

Salaries, wages, payroll costs and benefits are estimated to be $950,000 based upon the staffing requirements shown in Table 5 and current wage and salary levels and costs at comparable facilities in Boston and other citi

Utilities

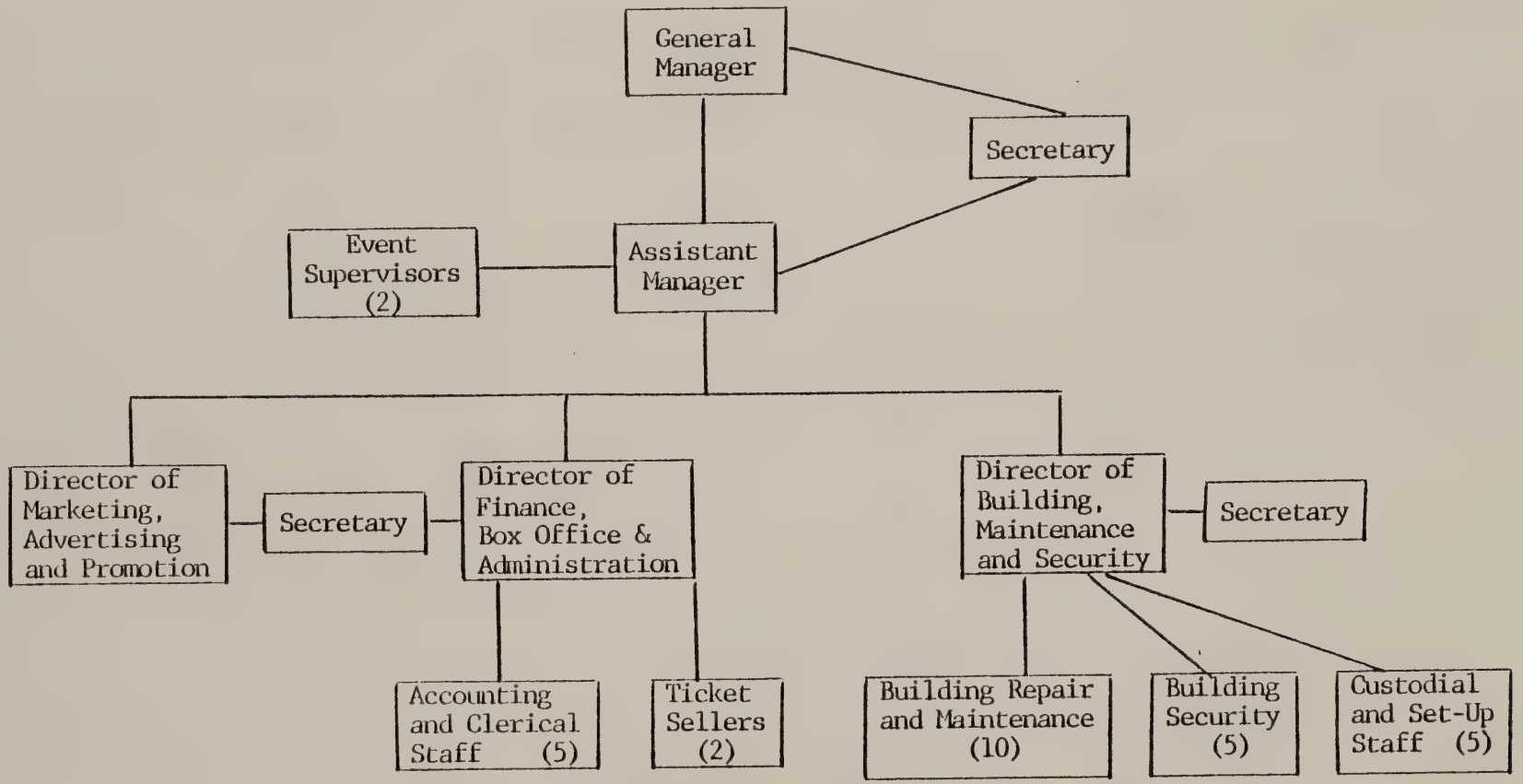
Costs for heat, lighting, air conditioning, water, etc., are estimated at $400,000 per year based upon utility costs for comparable modern arenas (Omni, Market Square and Spectrum) as shown on Table 1 and existing costs at the Garden (adjusted for air conditioning). Further refinement of this estimate is subject to engineering evaluation of building design and construction, type of energy plant, mechanical control systems, prevailing rates for utilities and fuel and other factors.

Insurance

Each tenant of the building must provide a certificate of insurance naming the arena as additionally insured against liability for bodily injury, death, property damage, etc., for a minimum amount of $1,000,000 for each event booked. The estimated cost paid by the arena for insurance (of $150,000 per year) is based upon existing costs at the Garden and the cost for similar insurance coverage at other arenas.

Table 5

PROPOSED BOSTON ARENA
POTENTIAL STAFFING OF TOTAL FULL-TIME PERMANENT EMPLOYEES



Source: Economics Research Associates

Other Expenses

Direct operating expenses, such as building and equipment maintenance, repairs, services and supplies are estimated to average $150,000 per year. Telephone, postage, travel, professional services and other general and administrative expenses are estimated at $200,000 per year.

All other expenses are projected to average $150,000 per year.

Total Expenses

Estimated expenses described in this section are summarized as follows:

Labor	$ 900,000 - 1,000,000
Utilities	300,000 - 400,000
Insurance	150,000
Sub Total	$1,350,000 - 1,550,000
Direct Operating Expenses	150,000
G & A	200,000
Other	150,000
	$1,850,000 - 2,050,000
Mid Point	$1,950

Section III

PROJECTED CONVENTION-EXHIBITION HALL FINANCIAL OPERATIONS

The potential market demand for major conventions and trade shows in Boston is represented by activities booked into the John B. Hynes Veterans Auditorium, Commonwealth Pier Exhibition Hall and additional event potential estimated by the management of these two facilities, the Boston Redevelopment Authority and the management of the Greater Boston Convention & Tourist Bureau.

The projected number of events at a new convention-exhibition facility, operating expenses and potential sources of funding net operating costs are estimated in this section. A discussion of locational considerations and economic impact is also included in this section.

ESTIMATED MARKET DEMAND

The City's John B. Hynes Veterans Auditorium is the center of most major convention and trade show activity in Boston. This facility contains 60,000 square feet of exhibition space on each of two levels (120,000 square feet total), a main assembly hall which can provide an additional 30,000 square feet exhibit space (directly adjacent to the first exhibition hall level) or portable seating (including the permanent seating on the balcony level) for 5,161 people, By utilizing wall partitions, large "modular" meeting rooms can be created on the two exhibit hall levels to supplement the ten permanent meeting rooms which accommodate 20 to 800 persons (6 hold 40 to 60 persons). A group renting the entire facility could also utilize the 7,000 square feet plus foyer, auditorium stage and dressing room areas.

Utilization of the Hynes facility and rentals charged for calendar year 1976 are shown on Table 6.

Commonwealth Pier Exhibition Hall is operated by a private company, New England Exhibition, Inc. This 185,000 square foot historic waterfront building is leased from the Massachusetts Port Authority and has been partially renovated by the lessee to provide a 50,000 square foot air conditioned exhibit hall; 120,000 square feet additional exhibit space; a full service cafeteria; lounge; concession facilities; banquet catering service; two conference rooms (4,000 square feet and 2,000 square feet); utility services to exhibit booths; and, other improvements together with adjacent parking for 3,000 cars. Estimated utilization of this facility for 1978 includes:

	Number Of Events	Average Event Days	Total Event Days
Trade Shows	5	3	15
Public Shows	13	7	91
State Licensing Exams	12	1	12
Total	30	11	118

Rental charges are based upon the following schedule:

Exhibit Hall	120,000 square feet @ $3,500 per day
Exhibit Hall	50,000 square feet @ $2,500 per day
Both Halls	170,000 square feet @ $5,000 per day

The availability of first class hotel rooms in close proximity to exhibit and meeting room facilities is mandatory to attract major national and regional conventions and trade shows to Boston. Major convention hotel facilities are described on Table 7. A comparison of Boston's convention/exhibition and hotel facilities is compared to other major cities on Table 8.

Table 6

JOHN B. HYNES VETERANS AUDITORIUM
BUILDING RENTAL REVENUE
1976
(By Type of Event)

Type of Event	Number of Events	Number of Event Days 1/	Average Days Per Event	Total Rental	Average Rental Per Event	Average Rental Per Event Day
Convention	48	139	2.9	$235,300	$ 4,902	$ 1,692
Local Civic Use 2/	7	7	1	7,000	1,000	1,000
Public Shows	15	69	4.6	308,200	20,546	4,466
Totals	70	215		$550,500		

1/ Not including "in-out" days.
2/ Includes local religious/social events.

Source: Economics Research Associates

Additional hotel development is a prerequisite to attracting additional conventions and trade shows to the City, according to a study prepared by the Boston Redevelopment Authority and interviews with convention bureau and facility managment. "Seventeen major trade shows are ready to book Boston if additional hotel facilities are available" states one facility manager. This translates to 85 event days plus an estimated 51 move in/out days for a total of 136 days. The report entitled, A Growth Strategy for Boston's Hotel and Convention Industry (B.R.A., May 1977) states, "Currently, the city has a base of 2,500 hotel rooms commitable for a city-wide convention. It is estimated that Boston needs about 4,000 commitable rooms in order to optimize its present market position....first priority should be given to the provision of some 1,600-1,800 new convention-oriented hotel rooms that are located in proximity to the city's existing convention facilities." This report further states that if additional hotel rooms and larger auditorium, meeting room and exhibit facilities were available, the City might be able to draw from an additional 100 conventions-market which cannot be accommodated presently, see Table 9. If these groups rotated their visits to the City on a ten year cycle (as do the smaller groups currently hosted by the City), an additional 50 days could be booked (3 day meetings plus two days move in/out).

More specifically, the ability of Boston to capture a greater share of the national and major regional (Northeastern states) convention market is not only a function of additional hotel room development (2,000 to 3,000 rooms) and additional exhibit and meeting room space (200,000 square feet), but is also a function of where the new exhibition-meeting space is located. If, for example, 50,000 to 75,000 square feet of additional space is provided

Table 9

"100" LARGE CONVENTIONS FACILITY REQUIREMENTS

Number Of Commitable Hotel Rooms	Larger Auditorium (only)	Larger Auditorium (& hotel rooms)	Larger Exhibit Space (only)	Larger Exhibit Space (& hotel rooms)	Larger Exhibit Space, Auditorium & Hotel Rooms	Totals
- 3399	7	0	17	0	0	24
3400 - 4499	-	8	-	6	1	15
4500 - 5499	-	9	-	2	3	14
5500 - 6499	-	5	-	8	4	17
6500 - 7499	-	4	-	4	1	9
7500 - 8499	-	1	-	1	1	3
8500 - +	-	3	-	3	5	11
Totals	7	30	17	24	15	93

Source: Boston Redevelopment Authority; Downtown Development Department; Laurence Koff; from International Association of Convention and Visitors Bureau Exhibit Space Meeting Index, 1976.

as an expansion of the Hynes facility, the City might draw five to ten more national groups per year.

The City could attain this same capture if a new 200,000 square foot free-standing exhibit and meeting rooms facility were developed.

If the new facility were developed in conjunction with a major, 800 to 1,000 room convention hotel, the City may increase its convention activity by 10 to 15 groups per year.

Each group is estimated to bring 1,000 to 1,500 delegates for an average of three days.

Utilization of a new facility might be supplemented by 5 to 10 trade shows and 5 to 10 public/consumer shows. Total activity in a new facility is estimated and summarized on Table 10.

OPERATING REVENUES AND EXPENSES

Current charges at Hynes Auditorium facilities are approximately 2 cents per square foot for convention and trade shows and 3 cents per square foot for public shows. This compares to Commonwealth Pier Exhibit Hall rental of 5 cents per square foot for the 50,000 square foot air conditioned hall and 3 cents per square foot for the 120,000 square foot hall, or approximately 3 cents per square foot for both halls.

Based on rental rates of about 3 cents per square foot per event day, in line with exhibit hall rental rates in other major cities as was shown on Table 1, rental income at a new facility is estimated to be $585,000 per year (mid-point of $420,000-$750,000) for a 200,000 square foot facility with the new hotel and $360,000 (mid-point of $240,000-$480,000). These projections compare with the Hynes Auditorium rental income of $471,000

Table 10

ESTIMATED NEW FACILITY ACTIVITY

	Conventions			Trade Shows			Public Shows			Total		
	Events	Event Days (3)	In/Out (2)	Events	Event Days (3)	In/Out (2)	Events	Event Days (5)	In/Out (2)	Event Days	In/ Out	Total
800 - 1,000 Rooms												
With Hotel	10-15	30-45	20-30	5-10	15-30	10-20	5-10	25-50	10-20	70-125	40-70	110-195
Without Hotel	5-10	15-30	10-20	-	-	-	5-10	25-50	10-20	40- 80	20-40	60-120

Source: Economics Research Associates

for Fiscal Year 1976-1977 and estimated $550,000 for calendar year 1976.

Income from concessions at the Hynes Auditorium produced $136,800 for Fiscal Year 1976-1977, or 22 percent of $607,970 total income. Assuming concession revenues at a new facility would yield 20 to 25 percent of total (rental and concessions) income, total income is estimated at $754,000 with a new hotel, and $465,000 for a facility without a new 800 to 1,000 room adjacent hotel.

Operating expenses at the John B. Hynes Veterans Auditorium for Fiscal Year 1976-1977 are shown in Table 11. These expenses do not include insurance which could cost $50,000 to $100,00 per year, and increase the annual operating expense to approximately $770,000 to $820,000 per year. If the new building were a third larger than the Hynes facility (200,000 square feet versus 150,000 square feet) operating expenses could increase by a like magnitude, or equal $1 million to $1.1 million per year producing an operating deficit of $246,000-$635,000. This compares to the operating deficit of $112,000 for the Hynes Auditorium facility for Fiscal Year 1976-1977 without insurance costs.

Operating deficits at convention-exhibition facilities in other major cities are, in most cases, funded by income received from a hotel-motel room tax. The report of the Boston Redevelopment Authority, referred to earlier, estimated income from a 1.3 percent increase in the hotel tax to equal $660,000 per year.

LOCATIONAL CONSIDERATIONS

The best site for the new arena may not be suitable for development of the convention-exhibition hall for the following reasons:

1. Proximity to Hotel Rooms - the best arena site may

Table 11

JOHN B. HYNES VETERANS AUDITORIUM
Expenses 7/1/76 - 6/30/77 1/

Item	Cost	Percent Of Total
Personnel	$ 156,443	21.7 %
Heat, Light and Power	370,440	51.4
Supplies	148,270	20.6
Maintenance and Repairs	34,625	4.8
Telephone and Postage	7,298	1.1
Equipment (Office and Other)	2,290	.3
Other	1,054	.1
Totals	$ 720,400 (rounded)	100.0 %

1/ The City does not insure this building, all tenants and lessees are required to provide their own insurance.

Source: John B. Hynes Veterans Auditorium Management; and Economics Research Associates

not provide convenient or ready access to the concentration of hotel rooms within the City,

2. Cost of New Freestanding Development - the cost of developing and operating a new freestanding facility may be excessive when compared to the costs of providing an addition to the John B. Hynes Veterans Auditorium or improving additional space at Commonwealth Pier.
3. Site Limitations - the most effective method of enhancing the City's competitive position to capture additional convention business may be to develop a hotel in conjunction with the new convention facility---in the same way the Sheraton was built together with the Hynes Auditorium in Prudential Center. Not only would this new hotel bring needed rooms to serve the convention business but it could also provide additional revenue in the form of an annual ground lease rental payment. Consequently, the best arena site may not be large enough to permit the exhibition convention facility and a new hotel in addition to the arena.
4. Traffic Congestion - If the proposed arena and convention facility were developed on the same site, their combined impact on traffic flow could become unacceptable. For example, if a major public flat show (car show, boat show, etc.) were to take place on the same afternoon or evening as an event in the 18,000 seat arena, the

combined impact would create a traffic jam in the City's narrow, winding streets.

ECONOMIC IMPACT

According to the report published by the Boston Redevelopment Authority, referred to earlier, the spending and taxes generated by each convention delegate are estimated at:

	Expenditure	Tax
Room	$ 35	$ 2.10
Food and Beverage	20	1.60
Retail Sales	20	1.00
Miscellaneous	10	.50
	$ 85/Day	$ 5.20/Day

The number of additional trade show and convention delegates attracted to Boston annually as a result of a new convention-exhibition facility developed in conjunction with a new 800 to 1,000 room convention hotel is estimated as follows:

	Convention	Trade Shows	Delegates/Day	Total
Event Days	30 - 45	15 - 30	1,250	56,000 - 94,000

Total annual expenditures and taxes generated by these additional visitors would be:

	Taxes Paid	Total Expenditures
Delegate/Days	56,000 - 94,000	$56,000 - $94,000
Total $/Day	x $5.20	x $85.00
Total-$/Year	$290,000 - $490,000	$ 4.8 - $ 8.0 million